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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,922	04/30/2002	Seppo Valli	7510.197USWO	5759

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EXAMINER

CATHEY II, PATRICK H

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,922

Applicant(s)

VALLI, SEPPO

Examiner

Patrick H. Cathey II

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION***Claim Rejections - 35 USC § 112***

Claim's 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The part of these claims that claims, as a key word of the aforementioned associative memory device, the image block average value of the image block to be coded is used, is not clearly understandable by the examiner and not shown in the specification. The examiner will assume the meaning to assign the name of the memory location as the average value. Further detail in the Specification and the Drawings are required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim's 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung (US 6,061,401) in view of Parulski et al. (US 5,633,678).

As for Claim's 1 and 5, Jung teaches the image block to be coded is determined on frame N and the search area corresponding to the location of the image block in question is determined on frame N-1 (Column 3, lines 38-51), the image block average values are determined in the location areas of the image blocks included in the search area in question by using a shift of predetermined size (Column 5, lines 33-39), the image blocks included in the search area in question are arranged in a predetermined order on the basis of the image block average values of the image blocks in question (Column 5, lines 39-51), the image blocks included in the search area are sorted by storing the image block average values of the image blocks in question in the memory locations of the directory memory of an associative memory device in an ascending or descending order (Column 5, lines 39-51; Column 4, lines 34-44), the group of the image blocks to be processed is restricted on the basis of a mean error (Column 5, lines 33-39) and the best match is searched among the image blocks included in the restricted group of images (Column 3, lines 41-51; Column 8, lines 55-62).

Jung fails to specifically teach as a key word of the aforementioned associative memory device, the image block average value of the image block to be coded being used, but Parulski et al. teach assigning names to memory files based on the categorization of the image (Column 7, lines 45-65). Since using the average value that you have calculated is just being placed as the file name in order to simplify refer to the matching between the current and previous blocks, it would have been obvious to one of ordinary skill to use the value that is

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already present because it has just been calculated and it is the only reference to the matching between the current and previous blocks.

Jung fails to specifically teach using the PDE method in order to find the best match. Jung does teach using the displacement in order to find the best match (Column 8, lines 55-62). Since the displacement shows the distance it would have been obvious to one of ordinary skill to use the particular PDE method as opposed to just finding the displacement. (Official Notice)

As for Claim 2, Jung teaches the search area being a predetermined area of regular shape around the image block to the coded (Column 5, lines 6-15).

Jung shows the box can be 8x8 pixels.

As for Claim 4, Jung teaches the possible location areas of the image blocks as being determined by using a shift of one pixel, a half of a pixel or other fractional shifts (Column 5, lines 26-32).

As for Claim 3, Jung fails to specifically teach an area being defined that is comprised of an area of one or more objects moving fast between successive images frames and using this movement as the search area. Jung does teach being able to measure and calculate the displacement of the search block between the current block and the best matching block (Column 8, line 55-62). The displacement over a predetermined time can simply detect fast or quick movements therefore it would have been obvious to one of ordinary skill to define a search area based on the fast moving objects because the fast object can simply be detected and flagged upon request. (Official Notice)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references not used in the above rejections were included because they teach additional information regarding motion estimation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick H. Cathey II whose telephone number is (571)272-7326. The examiner can normally be reached on M-F 7:30 to 5:00 (Every other friday off).

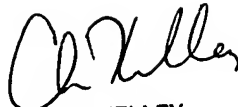
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571)272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick H. Cathey II
Examiner
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PHC


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
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